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November 18, 2015

Mr. Alexander Lempert
Director, IEH Division
New York City School Construction Authority
30-30 Thomson Avenue
Long Island City, NY 11101

**Re: P.S. 199M PCB Air Sampling Results
Summary Report
LLW# 063090; IEH Job# 39272**

Dear Mr. Lempert,

At the request of the New York City School Construction Authority (NYCSCA), TRC Engineers, Inc. (TRC) has prepared this Summary Report for the PCB air sampling event at P.S. 199M that was performed on October 2, 2015. Sampling was performed in accordance with the 'Pilot Study Remedial Investigation: 2014 Long Term Monitoring Plan' dated February 10, 2014, and as amended and approved in the U.S. Environmental Protection Agency (EPA) letter dated April 18, 2014. As part of the 2014 and 2015 long-term monitoring associated with the PCB Pilot Study, the SCA selected nine (9) representative locations to collect air samples with three (3) locations on each floor. These locations were chosen because they historically had among the highest average PCB concentrations measured on their respective floors. Sampling was also performed in one additional room on the third floor, at the request of the school principal.

Air Sampling Procedures

Indoor samples were collected in the following locations: classrooms 108, 118, 120, 204, 308, 314, 322 and 336, as well as in the gymnasium and library. In addition, the following samples were collected for comparison and quality control purposes: one duplicate sample, one front/back sample to evaluate apparent collection efficiency (ACE), and one outdoor air (ambient) sample. One field spike and one field blank were also submitted.

Air samples were collected in accordance with USEPA Method TO-10A (*Determination of Pesticides and Polychlorinated Biphenyls in Ambient Air Using Low Volume Polyurethane Foam (PUF) Sampling Followed by Gas Chromatographic/Multi-Detector Detection (GC/MD)*) as per Appendix E of the RI Plan, and analyzed via USEPA Method 8082 with five peak match, to achieve a 50 nanograms per cubic meter (ng/m³) detection limit. The air samples were collected at a flow rate of approximately five liters per minute for approximately 400 minutes for a total volume of around 2,000 liters for each sample. Samples in classrooms were collected near the center of each room, in the breathing zone at desk level, and away from doors, windows, and vents.

Temperature readings were also collected and data logged in the each of the sample locations.

October 2, 2015 Sampling Event

Sampling was performed with doors open, two (2) windows per classroom slightly open (approximately two [2] inches), and the heating/ventilation system operating normally. The sampling conditions were representative of school occupancy criteria based on exterior temperatures of approximately 49° Fahrenheit measured during the sampling period. All of the carbon air filtration units within the school had been shut down for 3½ weeks prior to air sampling, and remained turned off until the sampling was completed.

All samples were collected and containerized in accordance with USEPA protocols and sample methodology. Each container was properly labeled, preserved, and placed in a cooler for over-night transport to Pace Analytical, Inc. (Pace). Pace is a NYSDOH ELAP-certified analytical laboratory for USEPA Method TO-10A analysis. Standard chain-of-custody and sample storage and shipping procedures were followed. Samples were analyzed via USEPA Method 8082 with five peak match.

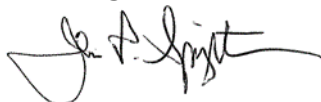
PCB Sample Results

TRC collected a total of 13 air samples on October 2, 2015. Samples were collected from ten (10) indoor locations, as described above, plus one outdoor sample for comparison purposes. The final validated laboratory results for the indoor air samples ranged from less than 47.3 ng/m³ to 136.9 ng/m³. None of the sample results were above the applicable EPA guideline for elementary schools. Please refer to Appendix 1 for a summary of the PCB air sampling results.

If you have any questions, please do not hesitate to contact us at (212) 221-7822.

Sincerely,

TRC Engineers, Inc.



John P. Springston, CIH, CSP, FAIHA
Industrial Hygiene Program Manager



Anthony J. Sigona, PE, CSP, LEED AP
Senior Project Manager

Attachments:

Appendix 1 - PCB Air Sample Results
Appendix 2 - PCB Air Sampling Locations

APPENDIX 1
PCB AIR SAMPLE RESULTS

Summary of Analytical Results for Air Samples -- October 2015
School P.S. 199M
Manhattan, New York

Analysis	Analyte	Sample Location:	Room 108 Floor 1	Room 118 Floor 1	Room 120 Floor 1	Room 204 Floor 2			Library Floor 2		Gymnasium Floor 2	Room 308 Floor 3	Room 314 Floor 3	Room 322 Floor 3	Room 336 Floor 3	Ambient Exterior	
			199-108-AR- POST-1	199-118-AR- POST-2	199-120-AR- POST-3	199-204-AR- POST-4	199-204-AR- POST-4B	Total	199- LIBRARY- AR-POST-5	199- LIBRARY- AR-POST-6	199-GYM- AR-POST-7	199-308-AR- POST-8	199-314-AR- POST-9	199-322-AR- POST-10	199-336-AR- POST-11	199-AMB- AR-POST-12	
					Front Half	Back Half											
		Sample Date:	10/2/2015	10/2/2015	10/2/2015	10/2/2015	10/2/2015	10/2/2015	10/2/2015	10/2/2015	10/2/2015	10/2/2015	10/2/2015	10/2/2015	10/2/2015	10/2/2015	10/2/2015
		Actual volume (L):	2051	2045	2042	2020	2020		2054	2026	2040	2047	2039	2012	2008	2008	
		Standard volume (L):	2113	2107	2102	2078	2078		2117	2088	2109	2121	2103	2076	2068	2142	
										Field Dup							
PCBs (ng/m3)	Aroclor 1016		47.3 U	47.5 U	47.6 U	48.1 U	48.1 U	48.1 U	47.2 U	47.9 U	47.4 U	47.1 U	47.6 U	48.2 U	48.4 U	46.7 U	
	Aroclor 1221		47.3 U	47.5 U	47.6 U	48.1 U	48.1 U	48.1 U	47.2 U	47.9 U	47.4 U	47.1 U	47.6 U	48.2 U	48.4 U	46.7 U	
	Aroclor 1232		47.3 U	47.5 U	47.6 U	48.1 U	48.1 U	48.1 U	47.2 U	47.9 U	47.4 U	47.1 U	47.6 U	48.2 U	48.4 U	46.7 U	
	Aroclor 1242		47.3 U	47.5 U	47.6 U	48.1 U	48.1 U	48.1 U	47.2 U	47.9 U	47.4 U	47.1 U	47.6 U	48.2 U	48.4 U	46.7 U	
	Aroclor 1248		47.3 U	47.5 U	47.6 U	73.1 J	48.1 U	73.1 J	81.4 J	78.6 J+	72.8 J+	62.6 J	47.8 J	81.1 J	49.8 J	46.7 U	
	Aroclor 1254		47.3 U	47.5 U	47.6 U	48.1 U	48.1 U	48.1 U	47.2 U	50.9 J+	64.1 J+	47.1 U	47.6 U	48.2 U	48.4 U	46.7 U	
	Aroclor 1260		47.3 U	47.5 U	47.6 U	48.1 U	48.1 U	48.1 U	47.2 U	47.9 U	47.4 U	47.1 U	47.6 U	48.2 U	48.4 U	46.7 U	
	Total PCBs		47.3 U	47.5 U	47.6 U	73.1 J	48.1 U	73.1 J	81.4 J	129.5 J+	136.9 J+	62.6 J	47.8 J	81.1 J	49.8 J	46.7 U	
Guidance Value*:		200	200	200	300	300	300	300	300	300	300	300	300	300	300		

Notes:

ng/m3 - nanograms per cubic meter.

J - Estimated value.

J+ - Estimated value; biased high.

U - Compound was not detected at specified quantitation limit.

Values in **Bold** indicate the compound was detected.

PCBs - Polychlorinated Biphenyls.

*- EPA Guidance values for schools are 300 ng/m3,

with targets of 100 ng/m3 in kindergarten and pre-kindergarten
classrooms and 450 ng/m3 for faculty/staff areas.

APPENDIX 2
PCB AIR SAMPLING LOCATIONS

Path Name: \\NTAP- NYC\Environmental\Shared\Projects\NYCSCA Contract C000013444\229029 - M199 PCB Caulk Pilot Work\Sampling Events\2015\October\Figures 1-3 PS 199M Air Sampling.dwg - Date\Time: Mon, 16 Nov 2015 - 1:34pm - User Name: cstout - Layout Tab: 1ST FLOOR

REVISIONS				
NO.	DESCRIPTION		BY	DATE

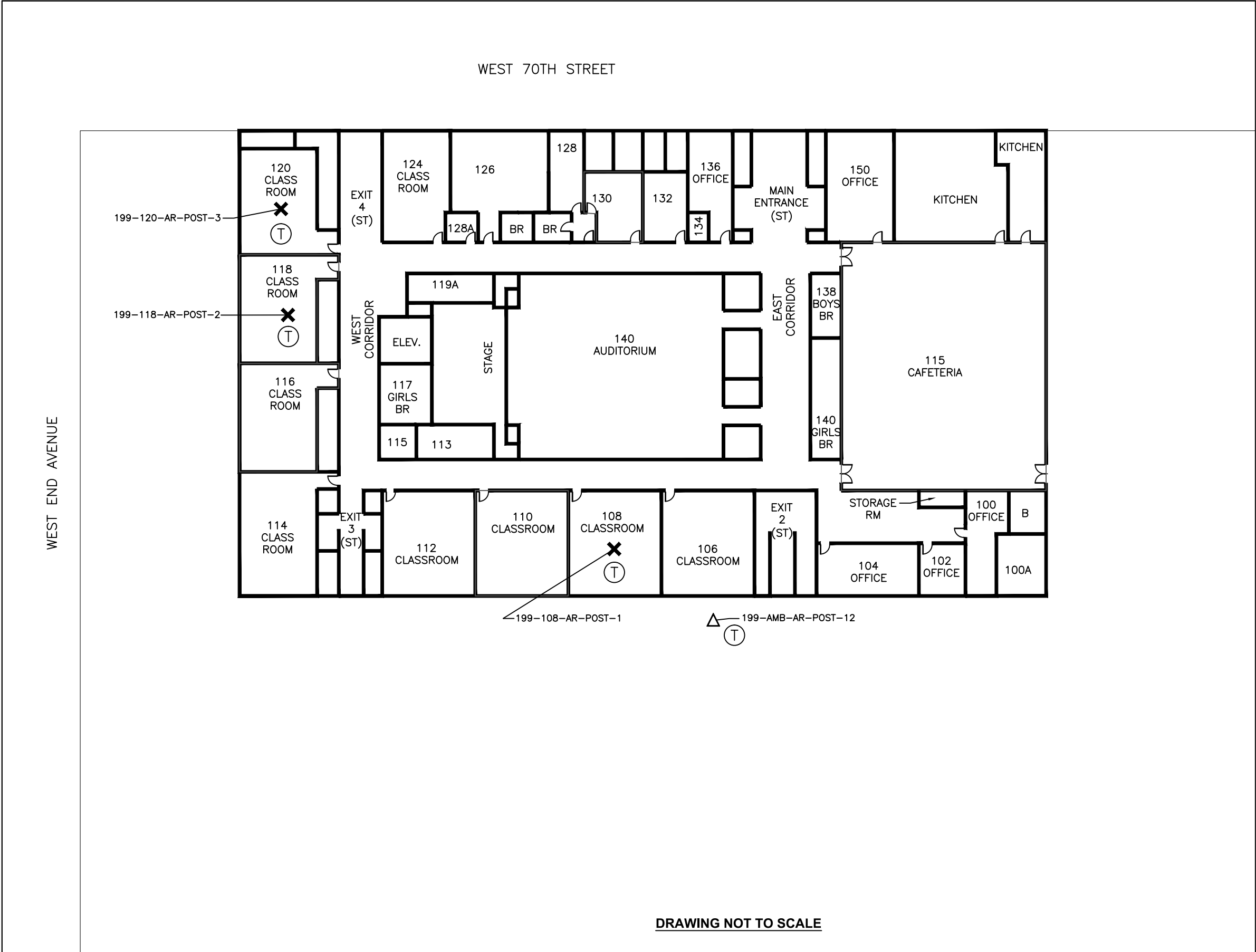
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DESIGNED BY: AS	PROJECT NAME: NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY P.S. 199M - JESSIE ISADOR STRAUS SCHOOL - 270 WEST 70TH STREET MANHATTAN, NEW YORK 10023
DRAWN BY: HD/CS	
CHECKED BY: AS	DRAWING TITLE: PUBLIC SCHOOL 199M FIRST FLOOR OCTOBER 2015 AIR SAMPLE LOCATIONS
DATE: OCTOBER 2015	
SCALE: NOT TO SCALE	
PROJECT NUMBER: 229029.0000.0000	

PROJECT NAME: NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY P.S. 199M - JESSIE ISADOR STRAUS SCHOOL - 270 WEST 70TH STREET MANHATTAN, NEW YORK 10023	
DRAWING TITLE: PUBLIC SCHOOL 199M FIRST FLOOR OCTOBER 2015 AIR SAMPLE LOCATIONS	

FIGURE
1



DRAWING NOT TO SCALE

LEGEND:

XXX

ROOM NUMBER

BR

BATHROOM

ST

STAIRS

BUILDING FOOTPRINT

AMBIENT AIR SAMPLE LOCATION

AIR SAMPLE LOCATION

199-XXX-AR-POST-XX

SAMPLE IDENTIFICATION

T

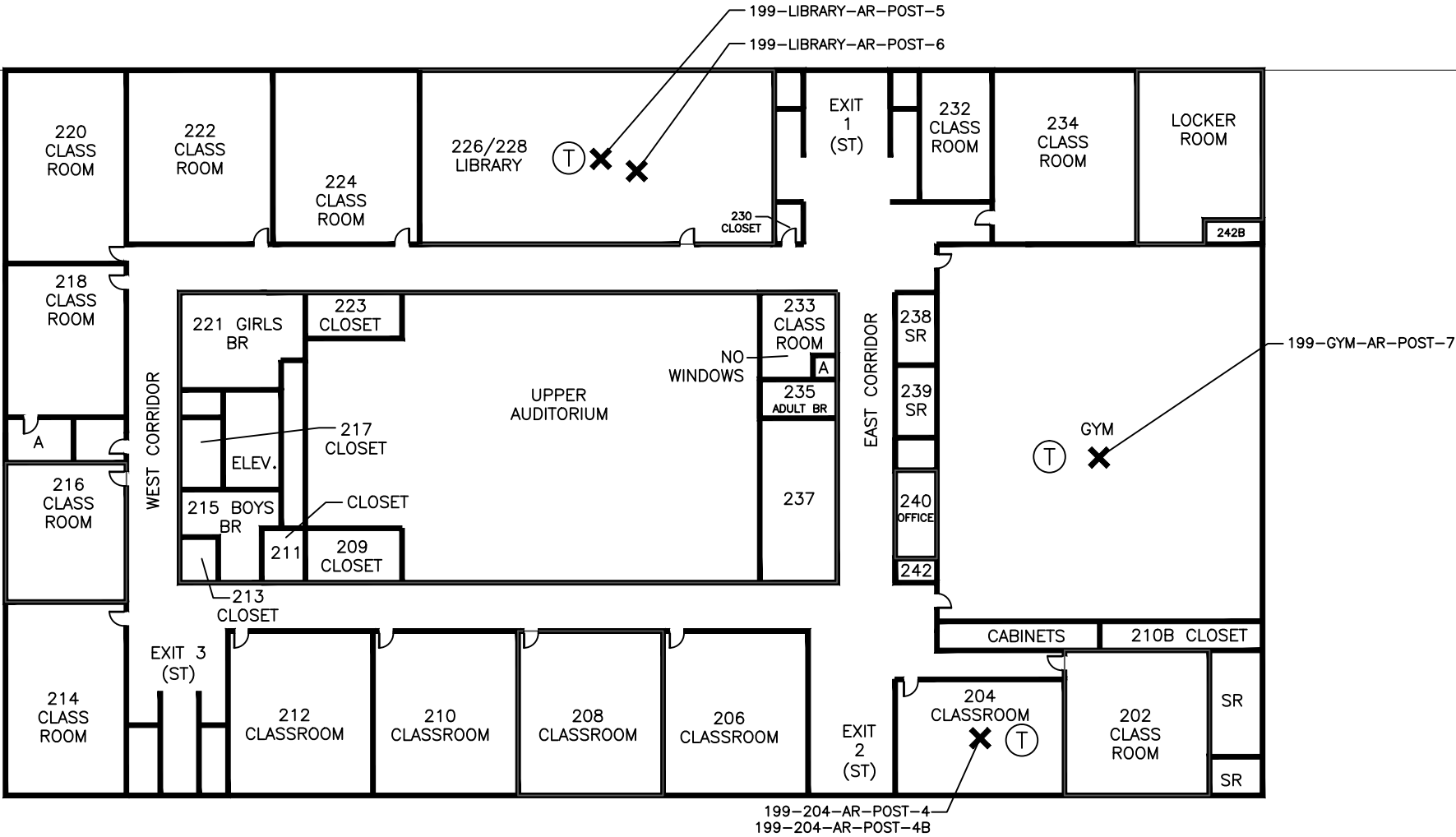
TEMPERATURE MONITOR

NOTE:
1. FIGURE BASED ON TRC FIELD OBSERVATIONS.

Path Name: \\NTAP- NYC\Environmental\Shared\Projects\NYCSCA Contract C000013444\229029 - M199 PCB Caulk Pilot Work\Sampling Events\2015\October\Figures 1-3 PS 199M Air Sampling.dwg - Date\Time: Mon, 16 Nov 2015 - 1:34pm - User Name: cstout - Layout Tab: 2ND FLOOR

WEST END AVENUE

WEST 70TH STREET



LEGEND:

- XXX ROOM NUMBER
- BR BATHROOM
- ST STAIRS
- BUILDING FOOTPRINT
- X AIR SAMPLE LOCATION
- 199-XXX-AR-POST-XX SAMPLE IDENTIFICATION
- T TEMPERATURE MONITOR

NOTE:

- FIGURE BASED ON TRC FIELD OBSERVATIONS.

DRAWING NOT TO SCALE

REVISIONS				
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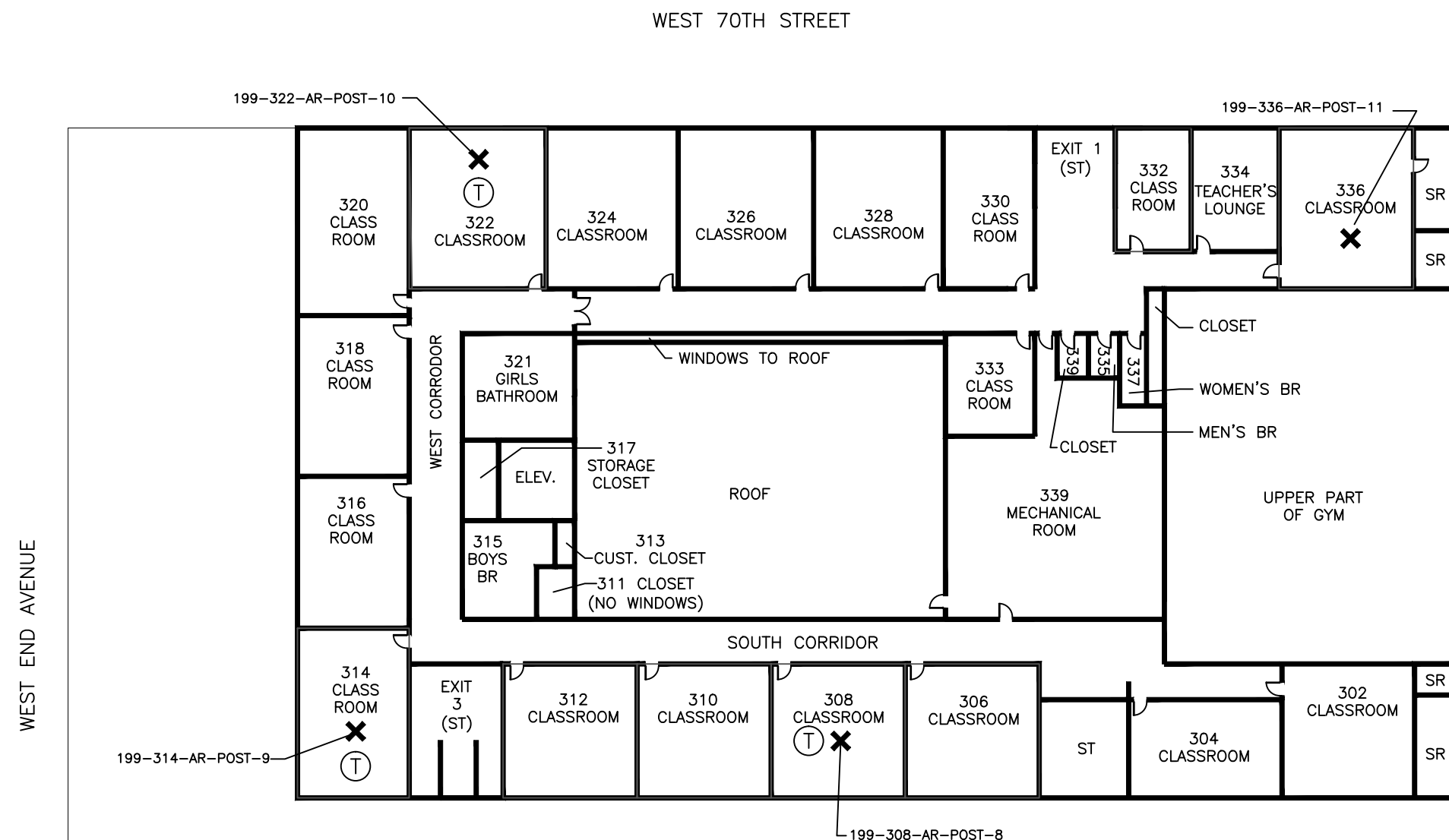
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DESIGNED BY: AS
DRAWN BY: HD/CS
CHECKED BY: AS
DATE: OCTOBER 2015
SCALE: NOT TO SCALE
PROJECT NUMBER: 229029.0000.0000

PROJECT NAME:
NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY P.S. 199M - JESSIE ISADOR STRAUS SCHOOL - 270 WEST 70TH STREET MANHATTAN, NEW YORK 10023
DRAWING TITLE:
PUBLIC SCHOOL 199M SECOND FLOOR OCTOBER 2015 AIR SAMPLE LOCATIONS

FIGURE
2



DRAWING NOT TO SCALE

REVISIONS					PAPER SIZE: 11" x 17"	 1430 BROADWAY, 10TH FLOOR NEW YORK, NEW YORK 10018 212-221-7822	DESIGNED BY: AS	PROJECT NAME: NEW YORK CITY SCHOOL CONSTRUCTION AUTHORITY P.S. 199M - JESSIE ISADOR STRAUS SCHOOL - 270 WEST 70TH STREET MANHATTAN, NEW YORK 10023	FIGURE 3
							DRAWN BY: HD/CS		
							CHECKED BY: AS		
							DATE: OCTOBER 2015		
							SCALE: NOT TO SCALE		
							PROJECT NUMBER: 229029.0000.0000		
	NO.	DESCRIPTION	BY	DATE				DRAWING TITLE: PUBLIC SCHOOL 199M THIRD FLOOR OCTOBER 2015 AIR SAMPLE LOCATIONS	